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The Effect of CEOs' Characteristics on Forward-Looking Information

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The Effect of CEOs' Characteristics on Forward-Looking Information (FLI)

Abstract

Manuscript Type - Empirical

Purpose - This paper aims to examine the effect of CEOs' characteristics on the level of FLI disclosure.

Design/methodology/approach - The study uses a disclosure index to measure the level of FLI and employs random-effect and panel data regressions to examine the relationship between CEOs' characteristics and the level of FLI disclosure. The sample consists of 201 non-financial companies listed on the Amman Stock Exchange (ASE) for the period 2008-2013.

Findings - The results show that the CEO age has a significant negative relationship with the level of FLI, whereas gender and overconfidence have a significant positive association with it.

Practical implications - The results could be beneficial for a number of users of financial information, such as regulators, investors, auditors and lenders to make better decisions.

Originality/value – The current study offers evidence of the effect of CEO characteristics on the level of FLI disclosure statements, particularly through narrative disclosures.

Keywords - Voluntary disclosure, FLI, annual reports, Jordan.

Paper type - Research paper

1 Introduction

Voluntary disclosure, such as FLI, is considered essential in demonstrating a company's position to shareholders, and other stakeholders in the wider sense of the term (Jensen and Meckling 1976; Lim et al. 2007; Hassanein and Hussainey 2015). In fact, a number of studies argue that the most significant items in voluntary disclosure are FLI (Francis et al. 2008a; Wang and Hussainey 2013). We extend the previous literature on FLI disclosure by investigating the effect of CEOs' characteristics on narrative FLI disclosure. We focused on forward-looking narrative because existing evidence suggests that managers who are willing to manipulate the tone of corporate disclosure are likely to target forward-looking statements for such purposes (Schleicher et al. 2007; Schleicher and Walker 2010). Thus, our study differs from previous studies on FLI disclosure in that we focus exclusively on how the personal characteristics of CEOs affect the voluntary narrative FLI. Previous studies suggest that corporate reporting practices vary predictably, in accordance with the particular individual characteristics of directors (Schrand and Zechman 2012; Davidson et al. 2013), and that these characteristics have an effect on managers' decisions, including their influence on voluntary disclosure strategies (Bamber et al. 2010), accruals quality (Francis et al. 2008a) and accounting policies (Thankom et al. 2015).

Disclosure regarding a company's future performance is mostly made on a voluntary basis, subject to managerial discretion (Clarkson et al. 2008). Although previous studies found that FLI disclosure enhances investors' ability to predict future earnings (Hussainey et al. 2003; Hussainey and Walker 2009; Athanasakou and Hussainey 2014), academic research has shown that no study has used the level of FLI disclosure to investigate the relationship between CEO characteristics and voluntary disclosure. This limitation provides the motivation for the present study, by providing evidence on the nature of the relationship between FLI discloasure and CEO characteristics in the context of Jordan. Furthermore, we were motivated by the unique role the CEOs can play in FLI statements, particularly through narrative disclosures.

We define FLI disclosure more widely and include all types of FLI disclosure, including management strategy, valuations of opportunities and risks, forecast data, qualitative and non-forecast data. This sort of approach is useful for the study is based on Jordanian companies, whose forward-looking statements are qualitative in nature and dominated by good news. We used 1,206 annual reports of 201 privatized Jordanian companies listed on the

ASE over the six-year period, 2008-2013, with the technique of manual content analysis to examine the narrative evidence from the annual financial reports.

It was found that CEO overconfidence and gender have a significant positive association with the level of FLI disclosure, while CEO age is negatively associated with FLI disclosure. The study provides early evidence of the impact of CEO characteristics on the level of FLI disclosure in a developing country. Other than researchers, the findings should be of interest to policymakers and regulators regarding the impact of CEO characteristics on the level of FLI in Jordan and in other developing countries, particularly in the Middle East and North Africa (MENA).

Jordan is significant in the MENA region as a pioneering service-based economy, largely because of its relative scarcity of natural resources. While other economies in the region are characterised by heavy state regulation and massive government bureaucracies (for political reasons, including the disbursal of oil and gas revenues), Jordan has pioneered the market economy and trade liberalization, along with its historic investment in education. Jordan is thus much more aligned to international norms in the globalized economy (Aljifri and Khasharmeh 2006). Over the years, the Jordanian government has worked closely with the IMF, practised careful monetary policy and made significant progress with privatization and a liberalized trade regime (Al-Akra and Ali 2012). The ASE, the biggest stock market in the region, operates an automated order-driven Electronic Trading System and works in close collaboration with the Jordan Securities Commission (JSC) on surveillance matters; it has a strong relationship with other exchanges, associations and international organizations.

The Jordanian capital market is mature by regional standards and is integrated with the Middle East market, which implies little long-run risk diversification (Saadi-Sedik and Petri 2006). The government of Jordan has introduced numerous reforms for accounting regulations, including securities exchange laws and corporate disclosure practices. These reforms contribute to more transparent markets and the listed companies have enhanced their voluntary disclosure (Al-Akra and Ali 2012; JSC 2015). Furthermore, Omar (2007) found that Jordan showed a significant improvement in disclosure after changes in the economic and accounting regulations (see Appendix 1). Thus, Jordan provides a unique national context in which to analyse the impact of CEO traits on the level of FLI disclosure.

Our paper provides two contributions to the literature in terms of determinants of FLI disclosure. First, it examines the impact of CEOs' personal traits on the level of FLI disclosure. Instead of the current literature's prevailing focus on the determinants of FLI disclosure on institutional characteristics, this study provides evidence of the association between CEO traits and FLI disclosure. Second, most of the studies on FLI disclosure conducted in developed countries. This study contributes to the literature of FLI disclosure by providing new evidence in the context of developing countries. The remainder of this paper organised as follows. Section 2 reviews the related literature and hypotheses, while Section 3 presents the research method. Section 4 presents the study findings, and Section 5 presents the conclusion and suggestions for future research.

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2 Literature Review and Hypotheses

The disclosure of corporate information can be a signal to capital markets, as expressed in signalling theory, which posits that managers use voluntary disclosure to signal private information to the market (Watts and Zimmerman 1978). The sending of a signal is based on the assumption that it should be favourable to the signaller, such as indicating the higher quality of its products compared with those of competitors (Salama et al. 2010). Furthermore, companies disclose more specific information to investors to signal that they are better than other companies in the market for the purpose of attracting new investment and enhancing their reputation (Campbell 2001). In line with this argument, managers are likely to disclose more FLI to the interest-related parties to increase their confidence about the company's future performance (Singhvi and Desai 1971). The last decade has seen a growing amount of research on the topic of managerial characteristics of CEOs. It is obvious that the sociological, professional, individual and physiological characteristics of managers may have an effect on various decisions (Bamber et al. 2010; Hirshleifer et al. 2012; Dejong and Ling 2013). Since CEOs are the key decision makers in voluntary FLI disclosure, it is important to investigate the relationship between their personal characteristics and FLI disclosure, which remain ambiguous in the current literature.

2.1 CEO Overconfidence

The general climate of mistrust in corporate leadership since the 2008 financial crisis has resulted in significant research attention being devoted to the personal attributes of CEOs in recent years, particularly their overconfidence in corporate voluntary disclosure (Schrand and Zechman 2012; Ahmed and Duellman 2013). Langer (1975, 315) defined overconfidence as "an overestimation of one's own abilities and outcomes relating to one's personal situation". Overconfidence as a personal characteristic tends to overestimate the results of one's decisions, and underestimate the risks associated with those decisions. Previous literature suggests that individual overconfidence has two key aspects: miscalibration and overoptimism (Skala 2008; Libby and Rennekamp 2012). Miscalibration is associated with individuals underestimating uncertainty when predicting events (Hribar and Yang 2015).

When individuals assess their relative skill, they tend to overstate their acumen relative to the average (Alicke 1985). This effect can extend to business decision making (Camerer and Lovallo 1999). While this is somewhat related to risk attitudes of individuals, it is also related to self-attribution bias, the tendency to attribute successful results from decisions to one's own actions, and bad outcomes to external factors (Dowling and Aribi 2013). Overoptimism refers to individuals who are unrealistically optimistic about uncertain outcomes. Accordingly, the overconfident individual believes that an uncertain outcome will be better than what would be predicted by an unbiased expectation. Both aspects of overconfidence are likely to be associated with the level of FLI disclosure decisions.

Schrand and Zechman (2012) used a sample of 49 firms subject to the US Securities and Exchange Commission (SEC) accounting and auditing enforcement releases and examined the relationship between CEO overconfidence and overstatement of earnings. Their findings suggested that overconfident executives are more likely to exhibit an optimistic bias and thus are more likely to start down a slippery slope of issuing intentional misstatements. Similarly, Ahmed and Duellman (2013) examined the association between CEO overconfidence and accounting conservatism and suggested a negative relationship between CEO overconfidence and accounting conservatism among US firms. Since overconfident CEOs usually overestimate future sales and return on assets, their overconfidence encourages disclosing more information. In the same vein, Hribar and Yang (2015) examined the effect of overconfidence on management forecasting behaviour across US firms and found that overconfidence is positively associated with the decision to issue voluntary forecasts, and that

their forecasts have a greater optimistic bias. Hence, an overconfident CEO is more likely to favour a high level of FLI disclosure.

H1. A positive association exists between CEO overconfidence and the level of FLI disclosure among non-financial Jordanian companies.

2.2 CEO Gender

Previous literature has documented the existence of differences between males and females in terms of personality, communication style, decision making, risk-taking behaviour, leadership, ethics, expertise and general performance in business (Peterson and Philpot 2007; Dowling and Aribi 2013). The findings of these studies suggest that the gender of company executives has an influence on corporate decisions, and that female executives tend to take a different perspective and demand different information than their male counterparts. However, the extent to which gender influences corporate reporting decision-making differences remains unclear. For example, Ge et al. (2011) found no significant relationship between CFOs' gender and accounting choices, while Krishnan and Parsons (2008) found that gender diversity in senior management affects earnings quality, increasing the quality of reported earnings. Similarly, Gul et al. (2011) examined whether the gender of directors affects fully independent audit committees' ability to constrain earnings management and thus their effectiveness in overseeing the financial reporting, finding that the proportion of females on the audit committee is not associated with earnings management. Jia et al. (2014) investigated the relationship between the facial structure of CEOs and their companies' financial misreporting, and the results showed that companies with CEOs who have more masculine faces have a higher incidence of financial misreporting. Recent studies by Ho et al. (2015) and Thankom et al. (2015) found that female directors tend to adopt more restrained earnings management, reflecting a proclivity toward more conservative accounting policies, and a generally more conservative mind-set among female CEOs characterised by a tendency to be less aggressive and more anxious.

H2. The level of FLI disclosure is positively associated with the presence of male CEOs among non-financial Jordanian companies.

2.3 CEO Age

A number of studies have attempted to explain the relationship between CEO age and the decision-making process. For example, Miller and Shamsie (2001) found that older CEOs

tend to take faster investment decisions due to their accumulated experience and knowledge. On the other hand, Bertrand and Schoar (2002) showed that olver CEOs (from cohorts with earlier year of birth) are more likely to be conservative in making investment decisions. Li et al. (2011) found that younger CEOs are likely to make more prolific investment decisions, since they need to signal their capability to the stakeholders, while Ge et al. (2011) provided evidence that older CEOs are more likely to use conservative accounting choices. Moreover, Bamber et al. (2010) reported that managers born before World War II are more likely to develop conservative disclosure styles than managers born afterwards. Lin et al. (2014) found a negative significant relationship between CEO age and internal control quality among 4,374 non-financial US companies. There is no evidence so far on the relationship between the CEO age and the level of FLI dosclosure.

H3. The level of FLI disclosure is negatively associated with CEOs' age among non-financial Jordanian companies.

3 Data and Methodology

Our initial sample for the study is all 270 companies listed on the ASE. However, we excluded all financial companies (n = 42) from the initial sample, due to their unique characteristics and the specific regulations and disclosure requirements, which may have an impact on the results (Al-Akra and Hutchinson 2013; Athanasakou and Hussainey 2014; Hassanein and Hussainey 2015). In addition, industrial sectors comprising fewer than six firms and companies with missing data were removed from the initial sample (Athanasakou et al. 2009). Thus, the final sample consisted of 1,206 firm-year observations over the study period 2008-2013, as presented in Table 1. This study adopted a six-year period from 2008 to 2013, since the financial crisis started in 2008 and triggered different reforms and corporate governance practices in the same year in Jordan. The data on FLI disclosure was collected from annual reports, each of which was scanned manually. The data on CEOs' characteristics was collected from different sources: annual reports, press releases, and direct communication with analysts. Furthermore, to cover some missing financial information in the annual reports, databases available via the websites of the Securities Depository Centre, the ASE and OSIRIS were used.

Insert Table 1 about sample description

3.1 Measuring the Level of FLI Disclosure

Content analysis, which has been extensively used in previous literature as a powerful tool to explore corporate disclosures (Hussainey et al. 2003; Aribi and Gao 2010; Menicucci 2013; Hassanein and Hussainey 2015), was utilized to gather and explore the items of FLI in the sample of this study. In content analysis, the selection of recording units such as sentences, words, lines, groups of words, pages, paragraphs or whole documents is necessary. This research uses words as a recording unit, since words are considered more reliable as a unit of analysis compared to longer alternatives (Hackston and Milne 1996; Al-Najjar and Abed 2014). Furthermore, Ng (1985) argued that using sentences, lines, portion of pages and whole documents may be inappropriate because column, print and page sizes may differ from one annual report to another. Thus, to overcome these problems the current study used number of words as an unit of analysis.

A keyword search was used to identify FLI items within voluntary section in each annual report. The study used a list of 35 forward-keywords established by Hussainey et al. (2003), such as *anticipate*, *next period*, *coming period*, *next* etc. (see Appendix 2). To allow content analysis to be used in a replicable manner, a checklist instrument with four categories describing the criteria for identifying disclosure as FLI was used in line with previous studies (Barako et al. 2006; Maali et al. 2006). Regarding the disclosure categories, Wallace and Naser (1996) and Francis et al. (2008b) reported that there is no consensus or general theory about categories to be selected for examining the extent of disclosure. The selection could be based on reviewing the literature or inspecting the content of FLI (Bryan 1997; Barako et al. 2006).

The categories and the list of FLI items included both financial and non-financial information disclosed by listed firms that may relate to FLI culminated in the generation of four categories and 45 items. Since the focus of this study is FLI, the preliminary four catagories and list of 45 items were sent to various individuals chosen on the basis of their expertise and knowledge of accounting practices (academicians and accounting professionals). Based on valuable recommendations provided by them, the four categories of FLI were confirmed, but the initial list of 45 items was reduced to 28 items by clustering similar items into single ones.

This method is consistent with previous literature (Barako et al. 2006; O'Sullivan et al. 2008; Menicucci 2013) (Appendix 3).

Three steps were employed to ensure the reliability and validity of the content analysis process: (1) we developed a set of specified and explicit coding instruments to minimize discrepancies and ensure objectivity; (2) five annual reports were tested by several coders to ensure that all coders adopted the same coding procedures, to resolve any differences between codes; and (3) the coding rules for classification of categories and checklist items were re-confirmed by five different professional accountants, and the results compared to identify possible disagreements.

Besides using the content analysis method, disclosure index was used to measure the extent of FLI. Cerf (1961) was the first study to employ disclosure index to assess the degree of corporate disclosure. Since the 1960s many researchers have extensively used disclosure index to measure the amount of information disclosed in annual financial reports (Maali et al. 2006; Mathuva 2012; Athanasakou and Hussainey 2014). Our approach to scoring FLI items is dichotomous in that each FLI item scores a value of 1 if disclosed, otherwise 0; and the approach to scoring is equally weighted. The disclosure index was constructed as a ratio obtained by dividing the number of FLI items disclosed by the total number of FLI for each company (e.g. Cerf 1961; Rizk et al. 2008).

This study used the following disclosure index to measure the level of FLI:

$$\text{FWD} = \Sigma di$$

Where FWD refers to the forward-looking category disclosed, and $di = 1$ if the category contains forward-looking items and zero if not.

The FLI disclosure for each company is set as:

$$\text{FWD/TDS}$$

Where TDS is the maximum disclosure provided by the companies in their published annual financial reports.

3.2 Independent Variables

Three measures of overconfidence were used, the first of which focuses on option-holding behaviour and stock purchases. Following Malmendier and Tate (2008), we consider overconfidence as a reflection of the degree to which CEOs fail to minimize the degree to which their personal wealth is exposed to company-specific risk. Their measurement is based on the tendency of CEOs to purchase extra stock in their own company despite their own personal wealth, rendering them exposed to company risk at a high level. In buying more company stocks, CEOs expose themselves to higher levels of company risk by overestimating the prospective returns on their own projects in the belief that company stock price would rise more under their leadership than would normally be expected. If CEOs have such overconfident beliefs, they tend to buy up stock in the company in the hope of profiting from the expected future gains. Thus, we defined CEOs as overconfident based on the 'Net Buyer' Measure (i.e. based on whether they were net buyers of the stock of their own companies in the initial six years of the sample). It ought to be noted that in detecting overconfidence in CEOs, they are defined as being overconfident for all the relevant years. A dummy variable was established with 1 representing overconfident and 0 referring to otherwise.

The second measurement of CEO overconfidence is based on CEO investment decisions. Previous studies document that companies' investment decisions are associated with managerial overconfidence (Malmendier and Tate 2008; Campbell et al. 2011), and that overconfident CEOs are more likely to overinvest in capital projects (Malmendier and Tate 2005a; Ben-David et al. 2010). Following Campbell et al. (2011) and Ahmed and Duellman (2013), we measured CEO overconfidence as a dummy variable which takes the value of 1 if the company's capital expenditure scaled by lagged total assets in a given year is higher than the median level of companies' expenditures scaled by lagged total assets for the industry type in the same year, otherwise it takes the value 0.

The third measurement of CEO confidence is based on financing decisions and capital structure. Overconfidence can significantly influence debt/equity choices, and overconfident CEOs will choose to issue more debt than their rational peers do, because of a belief that the firm is less likely to experience financial distress than it actually does (Hackbarth 2008). In Fairchild's (2005) asymmetric information model, overconfidence ultimately leads to excessive use of debt (Minggui et al. 2006; Oliver and Mefteh 2010). In the same vein,

Malmendier et al. (2007) indicated that overconfident managers use a higher level of debt than rational managers, thus they underestimate the expected cost of bankruptcy and take on more debt to exploit its tax benefits. We used the leverage ratio as a third proxy for overconfidence.

The CEO gender is measured as a dummy variable with the value of 1 if the CEO is male and 0 otherwise (Skalpe 2007; Yu et al. 2010). The study measures the CEO age as the difference between date of birth and the years of the study period (Cornett et al. 2009; Lin et al. 2014). In addition to these dependent and independent variables, a number of control variables were used to control for the possible effect of a company's characteristics and corporate governance factors that may affect the extent of FLI disclosure (Athanasakou and Hussainey 2014; Sartawi et al. 2014; Hassanein and Hussainey 2015).

3.3 Model Specification

The study uses panel regression data to examine the relationship between the level of FLI disclosure and a CEO characteristics. The main regression model used is given by:

$$Y_{it} = \beta + bX_{it} + \varepsilon_{it}$$

Where

Y = Dependent variable (FLI), X = Independent and control variables (COVER, CAPEXP, FLEVER, CGEN, CAGE, FSIZE, FPROF, FINDU, FDIVID, BSIZE, BDUAL, BMEET, BINDEP, MOWNE, FOWNE, INSTIT, BLOCL), β + b = coefficients, i and t = cross-sectional and time series dimensions, and Ɛ = error term.

Three models are defined as follows:

1. $FLI_{it} = \beta_0 + \beta_1 COVER_{it} + \beta_2 CGEN_{it} + \beta_3 CAGE_{it} + \beta_4 FSIZE_{it} + \beta_5 FPROF_{it} + \beta_6 FINDU_{it} + \beta_7 FDIVID + \beta_8 BSIZE_{it} + \beta_9 BDUAL_{it} + \beta_{10} BMEET_{it} + \beta_{11} BINDEP_{it} + \beta_{12} MOWNE_{it} + \beta_{13} FOWNE_{it} + \beta_{14} INSTIT_{it} + \beta_{15} BLOCK_{it} + \varepsilon_I$
2. $FLI_{it} = \beta_0 + \beta_1 CAPEXP_{it} + \beta_2 CGEN_{it} + \beta_3 CAGE_{it} + \beta_4 FSIZE_{it} + \beta_5 FPROF_{it} + \beta_6 FINDU_{it} + \beta X_7 FDIVID + \beta_8 BSIZE_{it} + \beta_9 BDUAL_{it} + \beta_{10} BMEET_{it} + \beta_{11} BINDEP_{it} + \beta_{12} MOWNE_{it} + \beta_{13} FOWNE_{it} + \beta_{14} INSTIT_{it} + \beta_{15} BLOCK_{it} + \varepsilon_I$
3. $FLI_{it} = \beta_0 + \beta_1 LEVER_{it} + \beta_2 CGEN_{it} + \beta_3 CAGE_t + \beta_4 FSIZE_{it} + \beta_5 FPROF_{it} + \beta_6 FINDU_{it} + \beta X_7 FDIVID + \beta_8 BSIZE_{it} + \beta_9 BDUAL_{it} + \beta_{10} BMEET_{it} + \beta_{11} BINDEP_{it} + \beta_{12} MOWNE_{it} + \beta_{13} FOWNE_{it} + \beta_{14} INSTIT_{it} + \beta_{15} BLOCK_{it} + \varepsilon_I$

Where:

FLI_{it} = forward-looking disclosure index of company i in the year t, expressed as % total FLI disclosed out of all items. COVER = CEO overconfidence, the proportion of CEO share ownership, options, and stock exercise, measured using 'Net Buyer'. CAPEXP = capital expenditures used as an alternative proxy for CEO overconfidence; this is a dummy variable taking the value 1 if the capital expenditure scaled by lagged total assets in year t is greater that the median level of capital expenditures to lagged total assets for the firm's industry in that year. FLEVER = leverage ratio, used as another proxy for CEO overconfidence and measured by total long-term debt divided by total assets. CAGE = CEO age, measured by the difference between the CEO date of birth and years of the study period. CGEN = CEO gender, 1 if male and 0 if female. FSIZE = firm size, natural log of firm's total assets. FPROF = profitability, measured by ROA (net income before tax divided be total assets). FINDU = industry type, from the ISIN, as stated by the Jordanian Securities Depository Centre (each company has a unique 10-digit number). FDIVID = dividends ratio measured as cash dividends divided by net income for the same period. BSIZE = board size, measured by the total numbers of the board. BDUAL = board duality, a dummy variable that takes the value of one if the CEO and chairperson are the same person and zero if otherwise. BMEET = board meeting, the number of meetings per year held by the board of directors. BINDEP = board independence, measured by the total number of outside directors. MOWNE = managerial ownership, measured by the percentage of total shares held by executive directors divided by the total number of shares. FOWNE = family ownership, measured by the proportion of total shares owned by the family; a dummy variable would take one if a family or an individual holds 10% or more of equity, and the value zero if otherwise. INSTIT = institutional ownership, measured by dummy variable which would take one if any institutional held shares, and zero if otherwise. BLOCK = block-holders ownership, measured by a dummy variable that takes the value of one if the firm has an external stockholder owning 5% or more of the outstanding shares, and the value of zero if otherwise. β = the constant. E = residual error.

4 Results and Discussion

Table 2 shows key descriptive statistics for all variables used in the study. The minimum value of the FLI disclosure rate is 0%, and the maximum is 78%, which indicates a considerable dispersion in the rates. The mean value of 31.6% shows a low level of FLI

disclosure across the companies. We used the median value 33% as a benchmark to classify the cutoff between high and low levels of FLI disclosure. In addition, Table 2 shows that 43%, 49% and 29% of CEOs were overconfident about their company's performance based on 'Net Buyer', capital expenditure and leverage ratio, respectively. The descriptive result shows that 95% of the CEOs are males. The mean age is 51.11 with minimum and maximum 26 and 84 respectively, and the median value 51. The median age is used as a cutoff point to classify older and younger CEOs.

The company size value indicates that the companies are widely dispersed. Profitability varies between a minimum value -85.90% (loss) and 95% (maximum profit), with standard deviation equal to 12.53%. The mean value of industry type indicates that 36% of the sample companies operate in the industrial sectors. Table 2 also shows that the mean value of dividends ratio is 17.6%, with minimum and maximum values of 0 and 97.5% respectively, and correspondingly the median value is 0 with a standard deviation of 29.9%. Concerning the other control variables, board size has a mean value 8.011, which is consistent with other studies (Peasnell et al. 2005; Sartawi et al. 2014). A dummy variable of board duality has a mean of 20.5%. This figure is lower than the average reported by Chau and Gray (2010), who found that the mean value among Hong Kong listed companies is 54%. Numbers of meeting and board independence have mean values of 7.572 and 2.020 respectively. Concerning ownership structure, managerial and family ownership have 35.5% and 61.2% mean values respectively, while institutions and blockholders are 35.5% and 48.92%.

Insert Table 2 about Descriptive Statistics here

Following descriptive analysis of the variables, Table 3 shows the correlation of coefficients between the independent and control variables of the period 2008–2013. The correlation matrix shows that the highest correlation is between board independence and board size, with a coefficient of 41.50%. Table 3 also indicates that no Pearson's coefficient is more that 80%, so there is no multicollinearity problem among the independent variables (Gujarati 2008).

Insert Table 3 about Correlation Matrix here

Table 4 reports the results of random-effect panel regression. The estimates are presented in three panels: panel A reports the results for the regressions where overconfidence is measured using the 'Net Buyer' method, and panels B and C represent the overconfidence variable based on capital expenditures and leverage ratio respectively. The combination of the independent variables shows respectively 25.69%, 38.3% and 23.45% of the variation of the dependent variable. The P-Value is highly significant at the level ($F = 12.05$, $p > .00$), implying that the model has a good explanatory power of disclosure. The table also shows that CEO overconfidence has a high significant effect on the level of FLI disclosure at levels ($t = 2.11$, $P > .035$, $t = 2.46$, $P > .014$ and $t = 8.06$, $P > .00$) based on the three methods (respectively), suggesting that confident managers are risk takers (Malmendier and Tate 2005a). This result supports a positive and significant relation between the level of FLI disclosed and CEO overconfidence, consistent with Francis et al. (2008a) and Demerjian et al. (2012), who found a positive relationship between a CEO reputation and managerial talent as proxies for overconfidence and financial reporting quality measured by the level of voluntary disclosure.

In addition, this result corroborates Hribar and Yang (2010), who found a positive relationship between a CEO overconfidence and voluntary forecasts, consistent with the upper echelons theory perspective, which suggests that specific personal characteristics of top management affect the decision-making process (Hambrick 2007). A possible explanation for these findings is that overconfident managers are more likely to be more optimistic about future circumstances. Thus, the results of the three panels support H1, in agreement with the agency theory perspective, which suggested that disclosures may be a tool for managers to convince stockholders about their optimal behaviour in response to the owner's attempt to control their activities through bonding and monitoring actions (Watson et al. 2002).

The significantly positive coefficient at level *($t = 2.11$, $P > .034$, $t = 2.01$, $P > .044$, and $t = 2.69$, $P < .007$)* of CEO gender indicates that companies managed by male CEOs are associated with more FLI disclosure than those managed by female CEOs. This finding confirms that gender diversity is one of the attributes influencing the voluntary information disclosures in annual reports (Gibbins et al. 1990; Nalikka 2009). This result supports H2, which proposes a significant relationship between the level of FLI disclosure and CEO gender, consistent with prior studies (Siciliano 1996; Erhardt et al. 2003). It consistent with

signalling theory, which posits that managers are more likely to disclose more and certain information to signal that they are better than other managers, for the purpose of enhancing their personal reputation (Campbell et al. 2001).

In respect to CEO age, we documented a negative significant coefficient *(t = -3.19, P < -.001, t = -3.61, P < -.001, and t = -2.48, P < -.013),* which implies a significant relationship between the level of FLI disclosure and CEO age. This finding is consistent with Bamber et al. (2010), who reported that older CEOs are less likely to issue forecasts than younger ones. This finding is also consistent with several studies that reported a significant negative association between CEO age and other factors, such as investment decisions (Serfling 2012; Yim 2013). The results of this study indicate that older managers tend to avoid risks more than younger managers, whereas younger managers tend to reveal their capability to stakeholders. This result is consistent with signalling theory: managers are more likely to make more FLI disclosures to the interest-related parties, to increase those parties' confidence about the company's future performance (Singhvi and Desai 1971), therefore making more FLI disclosure will provide stakeholders with greater and value-relevant information to assist them in making rational decisions (Qu et al. 2015).

This finding is also in line with suggestions that the desire to keep their position will result in a greater likelihood of information disclosure by younger CEOs (Hu and Kumar 2004), and with several studies that reported a significant negative association between the CEO age and other factors such as investment decisions (Serfling 2012; Yim 2013). The results of this study indicate that older managers tend to avoid risks more than younger managers, whereas younger managers tend to reveal their capability to the stakeholders.

With regard to the control variables, the regression results indicate that a firm's dividend has a highly positive association with the level of FLI disclosure, consistent with signalling theory, which affirms that companies are more likely to pay a higher dividend and disclose additional information voluntarily to meet the demands of financial analysts (Firth 1979; Haniffa and Cooke 2005; Celik et al. 2006; Lim et al. 2007; Kelton and Yang 2008). With regard to institutional ownership, the coefficient of this variable is significant and negatively related to the level of FLI. Conversely, company size, profitability, industry type, board characteristics, managerial ownership, family ownership and blockholder ownership are found to have an insignificant influence on the level of FLI disclosure.

Regression results challenge the relationship between these variables and level of FLI disclosure. Our findings are consistent with Barako et al. (2006) and Aljifri (2008) who reported an insignificant relationship between the level of FLI disclosure and profitability. This seems to support the theory that profitable firms are not motivated to disclose more voluntary information because their investors are already satisfied (Wallace and Naser 1996).

Insert Table 4 about Regression Analysis here

4.1 Dealing with Endogeneity

In order to address the endogeneity problem, this study used the lagged values of the endogenous independent variable 'CEO characteristics' as an instrumental variable (IV), to examine whether or not the simultaneity problem affects the association between FLI disclosure and CEO characteristics (Coles et al. 2008; McKnight and Weir 2009; Choi et al. 2010).

Durbin and Housman tests were run to check endogeneity bias for the endogenous and independent variables (Gujarati 2008). Both tests gave an X^2 of 5.68 % and 5.67% (*P < 0.0172, P < 0.0176*) respectively, which suggests that the null hypothesis (of no endogeneity between CEO characteristics as independent variable and FLI disclosure as the dependent variable) is rejected. Thus, the presence of this problem might affect the results. Therefore, instrumental variable two-stage regression was used to control for the endogeneity and simultaneity problems.

The results of the two-stage (2SLS) regression of FLI disclosure on CEO characteristics are presented in Table 5, panels A and B. After controlling for the simultaneity, the coefficient of FLI disclosure is significant and positively related to CEO overconfidence at level (*t = 4.70, P < .001*, and *t = 2.97, P < .003*), which suggests that these results are consistent with the main findings in Table 4, panels A and B. The coefficient of CEO gender is significant and positively associated with the level of FLI disclosure at level (*t = 6.64, P < .001, and t = 4.84, P < .000*). The two-stage regression analysis shows similar results to the panel regression in Table 4. In addition, the coefficient of FLI disclosure is significant and negatively related to CEO age at levels (*t = -2.40, P < -.016, and t = -2.53, P < -.011*). This result is in line with the previous results of the panel-regression random effect model reported in Table 4, panels A and B. Regarding the control variables, the results show similar results.

However, although some coefficient values reveal significant high levels, the direction and significance of the association with FLI disclosure remain the same.

In summary, the instrumental variable two-stage model's results are consistent with the primary results presented in Table 4, panels A and B, indicating that the simultaneity problem between FLI disclosure and CEO characteristics does not affect the main results of FLI disclosure or other control variables.

Insert Table 5 about Instrumental Variable here

5 Conclusion

The paper examined the effect of a CEO characteristics on the level of FLI disclosures in Jordanian listed companies during the period 2008 to 2013, motivated by findings reported in the literature that the financial reporting process varies predictably with particular individual characteristics of CEOs. We found that 95% of the sample were managed by male and 5% by female CEOs, and that the majority of Jordanian companies are family-owned. However, the limited number of female CEOs still surpasses the averages of around 3% in Brazil, Botswana, Ireland, Japan, New Zealand and the UAE (Grant Thornton International Business Report, 2012). The overall results indicate that CEO overconfidence and gender have a positive and a significant association with the level of FLI disclosure. The regression further shows a significant negative association between the level of FLI disclosure and the CEO age, suggesting that older CEOs are less likely to issue forecasts than younger CEOs. This finding is consistent with the entrenchment theory perspective, which suggests that the desire to keep their position will result in a greater likelihood of more information disclosure by younger CEOs (Hu and Kumar 2004). We find a positive association between the level of FLI and the dividends ratio of the company, but a negative relationship between institutional ownership and the level of FLI disclosure, and no relationship with firm characteristics such as profitability, industry type or company size, board characteristics, managerial ownership, family ownership and blockholders ownership.

In the real world, a large number of companies have concerns about the possible implications of FLI disclosure on their competitive advantage, irrespective of its impact on investor understanding. This is true in countries such as Jordan, where the right to run the companies

rests with managers, and FLI disclosure is generally taken with a pinch of salt. Moreover, as the financial statements do not provide the required information for investors to make economic decisions, the increasing acceptance of FLI disclosures would bring more trust among investors in the Jordanian capital market. Since there is no clearly defined structure for FLI disclosures, it is the prerogative of the company to decide on the nature of the information to be included. However, the development of good home-grown practices in FLI disclosure requires substantial educative measures at the national level on the implications of sound FLI disclosure.

The findings of the study should be of interest to policymakers, regulators and academics regarding the impact of CEO characteristics on the level of FLI disclosure in Jordan and in other countries in the region. Further, the findings of this study are likely to be of interest to investors, since this study introduces new empirical evidence about the level of FLD in Jordan. The findings provide empirical evidence that enables managers to assess their financial transparency and accountability, in turn helping firms to improve investors' perceptions of the quality of financial reporting. From a practice point of view, the managers need to give priority to publish voluntary disclosures in the intended spirit. However, these findings are based on non-financial companies only, and future studies could focus on the financial sector, which plays an increasingly important role in developing economies, particularly Jordan, which is a bridgehead of market liberalization in MENA. These results are not indicative of other countries, even within the Middle East, because of Jordan's unique liberalization and other factors.

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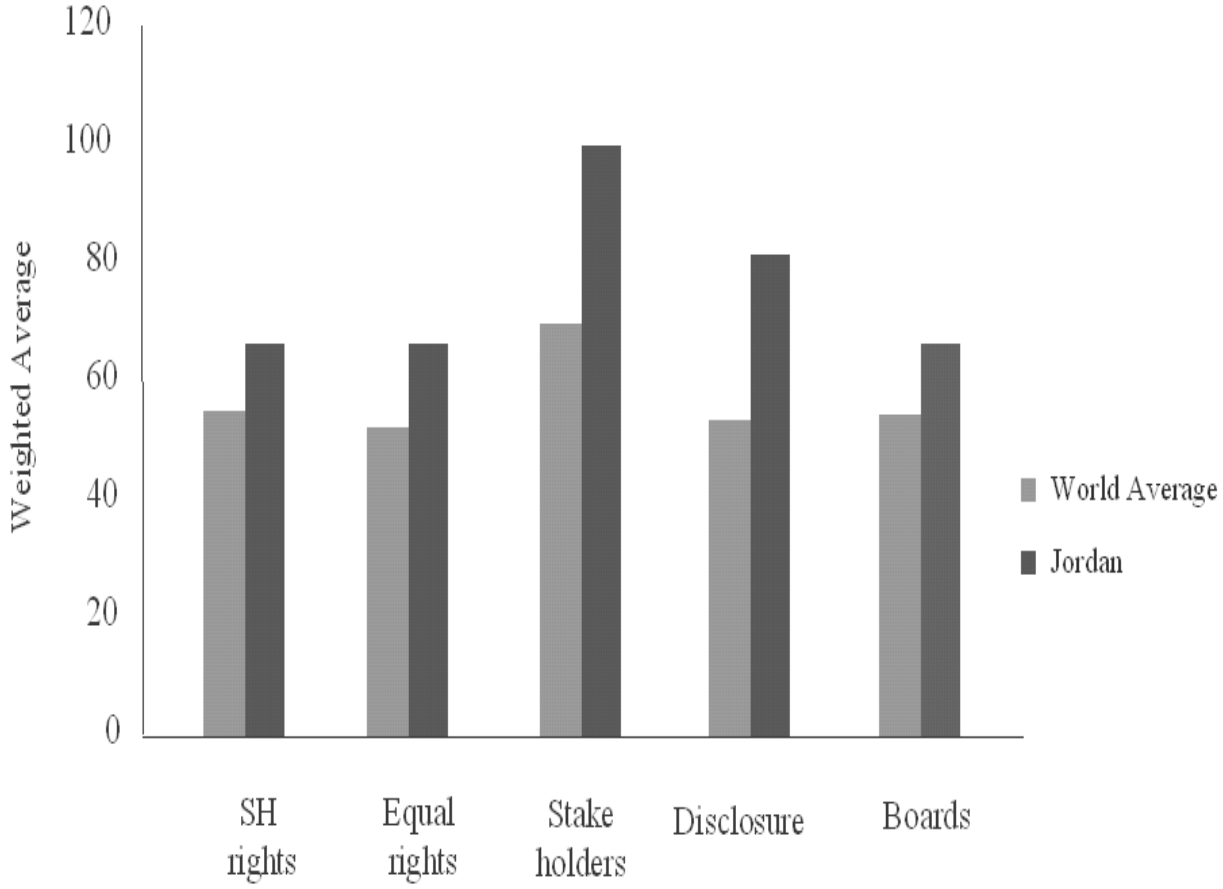
Appendix 1: Compliance with the Economic Cooperation and Development (OECD) Principles: Jordan and the World



Source: Alwshah (2009, P. 22).

Appendix 2: List of 35 Forward-Looking Key Words

Number	Forward-Looking Key words
1	Accelerate
2	Anticipate
3	Await
4	Coming financial year(s)
5	Coming months
6	Confidence (or confident)
7	Convince
8	Current financial year
9	Envisage
10	Estimate
11	Eventual
12	Expect
13	Forecast
14	Forthcoming
15	Hope
16	Intend (or intention)
17	Likely (or unlikely)
18	Look forward (or look ahead)
19	Next
20	Novel
21	Optimistic
22	Outlook
23	Planned (or planning)
24	Predict
25	Prospect
26	Remain
27	Renew
28	Scope for (or scope to)
29	Shall
30	Shortly
31	Should
32	Soon
33	Will
34	Well placed (or well positioned)
35	Year(s) ahead

Source: (Hussainey et al. 2003, P. 277).

Appendix 3: FLI disclosure Categories and Items

- Financial FLI items
- Income
- Profit
- Loss
- Cash flow
- Capital
- Return on equity
- Sales
- Capital expenditures
- Production
- Cost
- Expenses

- Non-Financial FLI items

Strategies items:

- Goals for performance
- Mission
- Objectives

- Company structure
- Financial structure
- Change in ownership
- Industry type
- Human and intellectual capital
- Mergers and acquisitions
- Technological structure

- Environment
- Legal and regulatory
- Political
- Economic conditions
- Social responsibility
- Competitive position
- Financial and non-financial resources
- Risks
- Relationship

Table 1
Sample Description

Description	2008	2009	2010	2011	2012	2013	Pooled
Initial sample	270	270	270	270	270	270	1620
Excluded:							
Financial industries	42	42	42	42	42	42	(252)
Non-financial industries	228	228	228	228	228	228	1326
Industries with fewer than six firms							
Health care	4	4	4	4	4	4	24
Technology and communication	1	1	1	1	1	1	6
Media	2	2	2	2	2	2	12
Paper and cardboard	3	3	3	3	3	3	18
Utilities and energy	3	3	3	3	3	3	18
Printing and packaging	1	1	1	1	1	1	6
Tobacco and cigarettes	2	2	2	2	2	2	12
Glass and ceramic industries	1	1	1	1	1	1	6
							(102)
Firms with unavailable data	10	10	10	10	10	10	(60)
Final sample	201	201	201	201	201	201	1206

Table 2
Descriptive Statistics: Dependent and Independent Variables

Variables	N	Minimum	Maximum	Mean	Median	Std. Deviation
FLI	1206	.00	.78	.316	.33	.149
COVER	1206	0	1	.43	.00	.499
CAPEX	1206	0	1	.497	1	.410
LEVER	1206	.0020	.977	.294	.240	.233
CGEN	1206	0	1	.95	1	.170
CAGE	1206	26	84	51.11	51.00	11.312
FSIZE	1206	.93e+03	3.23e+09	5.55e+07	1.87e+07	1.57e+08
FPROF	1206	-.859	.950	-.001	.009	.125
FINDU	1206	1	20	.363	.240	.481
FDIVID	1206	0	.975	.176	0	.299
BSIZE	1206	3	19	8.011	7	2.4494
BDUAL	1206	0	1	.2056	0	.40433
BMEET	1206	3	28	7.5729	7	2.1378
BINDEP	1206	0	8	2.0207	2	1.2345
MOWNE	1206	0	.7185	.03528	0	.08595
FOWNE	1206	0	.9450	0.6127	.15472	.27206
INSTIT	1206	0	1	.35547	.3320	.76537
BLOCK	1206	0	1	.48922	0	.50009
Valid N	1206					

Table 3
Correlation Matrix

	COVER	CAPEXP	LEVER	CGEND	CAGE	FSIZE	FPROF	FDIVID	BSIZE	BDUAL	BMEET	BMEET	BINDE	MOWNE	FOWNE	INSTIT	BLOCK
COVER	1.0000																
CAPEXP	0.1475	1.0000															
LEVER	-0.1672**	0.225	1.0000														
CGEND	0.0902*	-0.143**	0.0236	1.0000													
CAGE	0.1171	0.2113	0.0124	0.0902*	1.0000												
FSIZE	-0.0455*	-0.216*	0.115**	0.1976	-0.0583***	1.0000											
FPROF	0.0078	0.208**	0.036	0.0029	0.0361	-0.2859**	1.0000										
FINDU	0.1388**	-0.0798	0.1457	0.0176**	-0.2239***	-0.1028	-0.0397**	1.0000									
FDIVID	0.1026	0.0369	0.1475	0.0052	0.0953**	0.1765	0.3666**	0.0998*	1.0000								
BSIZE	0.005	0.0347	0.026	-0.047	-0.012	0.271**	0.017	0.040	0.041	1.0000							
BDUAL	-0.077**	0.0054	-0.001	0.005	0.010	-0.019	-0.068**	-0.102**	0.009	-0.06*	1.0000						
BMEET	-0.012	0.001*	-0.027	0.022	-0.024	0.052*	0.052*	-0.084**	-0.029	0.007	0.022	1.0000					
BINDE	0.012	0.042	0.047*	-0.130**	0.034	0.049*	-0.007	0.009	0.062*	0.415**	0.139**	-0.081**	1.0000				
MOWNE	-0.032	0.341*	0.036	-0.030	-0.038	-0.066*	-0.015	-0.063*	-0.025	-0.11**	0.239**	0.016	0.083	1.0000			
FOWNE	0.035	0.250*	-0.034	0.007	-0.034	0.001	-0.040	0.034	-0.017	-0.014	-0.013	0.006	-0.048	-0.009	1.0000		
INSTIT	-0.033	0.0141	-0.08**	0.064*	0.042	0.033	0.052*	0.024	0.021	0.055*	-0.139**	-0.049*	0.011	-0.170	-0.041	1.0000	
BLOCK	0.006	0.055*	0.019	0.011	0.008	0.046	-0.082**	-0.022	-0.053*	-0.010	0.035	-0.025	0.023	0.027	-0.028	-0.009	1.0000

***. 0.01, **. 0.05, *. 0.10

Table 4

Panel A. CEO Overconfidence Measured by 'Net Buyer'

Variables	Expected sign	Coefficient.	t	Prob.
COVER	+	.0239732	2.11	0.035**
CGEN	+	.0610475	2.11	0.034**
CAGE	-	-.0015846	-3.19	-0.001***
FSIZE	+	3.43e-11	0.82	0.411
FPROF	+	.0322521	0.70	0.485
FINDU	?	.0065221	0.07	0.918
FDIVID	?	.0586593	3.14	0.002***
BSIZE	?	-.0027823	-0.88	0.377
BDUAL	+	.0075602	0.44	0.659
BMEET	?	.0014005	0.50	0.618
BINDEP	-	.0069712	1014	.0252
MOWNE	+	.0520774	0.67	0.501
FOWNE	?	-.0000245	-0.13	0.895
INSTIT	?	-.0591668	-2.33	0.020**
BLOCK	-	-.0047866	-0.41	0.683
Cons		.3490898	4.74	0.000***
R Sq. value	25.69%			
P. value	0.0000			

Panel B. CEO Overconfidence Measured by Capital Expenditure

Variables	Expected sign	Coefficient.	t	Prob.
COVER	+	.0279078	2.46	0.014**
CGEN	+	.0581859	2.01	0.044**
CAGE	-	-.0017858	-3.61	0.001***
FSIZE	+	4.56e-11	1.08	0.278
FPROF	+	.0269114	0.58	0.559
FINDU	?	-3.27e-12	-0.23	0.817
FDIVID	?	.0649896	3.52	0.001***
BSIZE	?	-.0032706	-1.04	0.300
BDUAL	+	.0016278	0.09	0.925
BMEET	?	.0011094	0.39	0.693
BINDEP	-	.0076598	1.26	0.209
MOWNE	+	-.0477566	0.62	0.538
FOWNE	?	-.0000157	-0.08	0.932
INSTIT	?	-.0597762	-2.42	0.019***
BLOCK	-	-.0045131	-0.38	0.701
Cons		.3525791	9.31	0.001***
R Sq. value	38.30%			
P. value	0.0001			

Panel C. CEO Overconfidence Measured by Leverage

Variables	Expected sign	Coefficient.	t	Prob.
COVER	+	.1918623	8.06	0.000***
CGEN	+	.0415782	2.69	0.007***
CAGE	-	-.0011973	-2.48	0.013***
FSIZE	+	2.78e-11	0.68	0.494
FPROF	+	.0867602	1.90	0.058**
FINDU	?	9.16e-13	0.07	0.946
FDIVID	?	.0502298	2.78	0.005***
BSIZE	?	-.0029124	-0.95	0.343
BDUAL	+	.0079785	0.48	0.633
BMEET	?	.0016117	0.59	0.556
BINDEP	-	.0042051	0.71	0.478
MOWNE	+	.0419184	0.56	0.578
FOWNE	?	.0000534	0.30	0.767
INSTIT	?	-.0482082	-1.95	0.052**
BLOCK	-	-.0252158	-1.82	0.069*
Cons		.3061779	8.15	0.000***
R Sq. value	23.45%			
P. value	0.000			

Table 5

Panel A. Instrumental Variable: CEO Overconfidence Measured by 'Net Buyer'

Variables	Expected sign	Coefficient.	t	Prob.
LCOVER	+	.1060139	4.70	0.001***
LCGEN	+	.3024688	6.64	0.001***
LCAGE	-	-.0025205	-2.40	0.016***
FSIZE	+	2.37e-10	6.51	0.001***
FPROF	+	-.067299	-1.64	0.101*
FINDU	?	6.92e-12	0.82	0.413
FDIVID	?	.0727807	4.30	0.000***
BSIZE	?	.0040664	1.99	0.047**
BDUAL	+	.0140643	1018	0.237
BMEET	?	-.0011452	-0.55	0.584
BINDEP	-	.005462	1.33	0.183
MOWNE	+	-.0587541	-1.07	0.285
FOWNE	?	-.0479093	-2.51	0.012**
INSTIT	?	-.0467553	-2.76	0.006***
BLOCK	-	-.0008176	-0.09	0.929
Cons		.2858471	11.13	0.000***
R Sq. value	78%			
P. value	0.000			

Panel B. CEO Overconfidence Measured by Capital Expenditure

Variables	Expected sign	Coefficient.	t	Prob.
LCOVER	+	.1545815	2.97	0.003***
LCGEN	+	.2287371	4.84	0.000***
LCAGE	-	-.0026513	-2.53	0.011***
FSIZE	+	2.32e-10	5.91	0.000***
FPROF	+	.1621363	2.32	0.020**
FINDU	?	6.92e-12	0.84	0.400
FDIVID	?	.0744217	4.08	0.000***
BSIZE	?	.0051425	2.34	0.020***
BDUAL	+	.0187075	1.46	0.145
BMEET	?	-.002104	-0.93	0.351
BINDEP	-	.0032182	0.73	0.467
MOWNE	+	-.0742387	.0592357	0.210
FOWNE	?	-.0730847	-3.55	0.000***
INSTIT	?	-.045036	-2.47	0.014***
BLOCK	-	.0067907	0.69	0.492
Cons		.2746264	9.91	0.000***
R Sq. value	75.50%			
P. value	0.000			